D2Sun Team presents you SunKey Fusion

A fusion of 3 fantastic D2Sun products:

Wii-Clip + D2Sun + Sunkey all-in-one

SunKey Fusion User Manual

Version 1.0

Contributed by info@d2sun.nl

Changelog:

Manual:

- Initial release.

Table of contents

1. The SunKey Fusion Package 3

1.1 Contents of package 3

1.2 The SunKey Fusion Specs 4

2. Installation of the SunKey Fusion : SunKey Mode 5

2.1 Connect the ribbons and external switchboard 5

2.2 Connect the Wii DVD drive. 6

2.3 Reassemble your Wii 6

3. Installation of the SunKey Fusion : D2Sun Mode 7

3.1 Configure the Wii Region (PAL/USA/JAP/KOR) 7

3.2 Configure the Wii chipset (DMS/D2A/D2B/D2C/D2C2/D2E) 8

3.3 Configure the J1 jumper to work d2sun mode without switchboard. 9

3.4 Wii-Clip installation 10

3.5 Wired installation 10

3.6 Reassemble your Wii 11

4. Installation of the SunKey Fusion : Fusion Mode 12

4.1 Configure the chipset and region settings for 6x speed switch mode 12

4.2 Install the wires between the dvd drive and the SunKey Fusion 12

4.3 Connect the FPC's to the SunKey Fusion 13

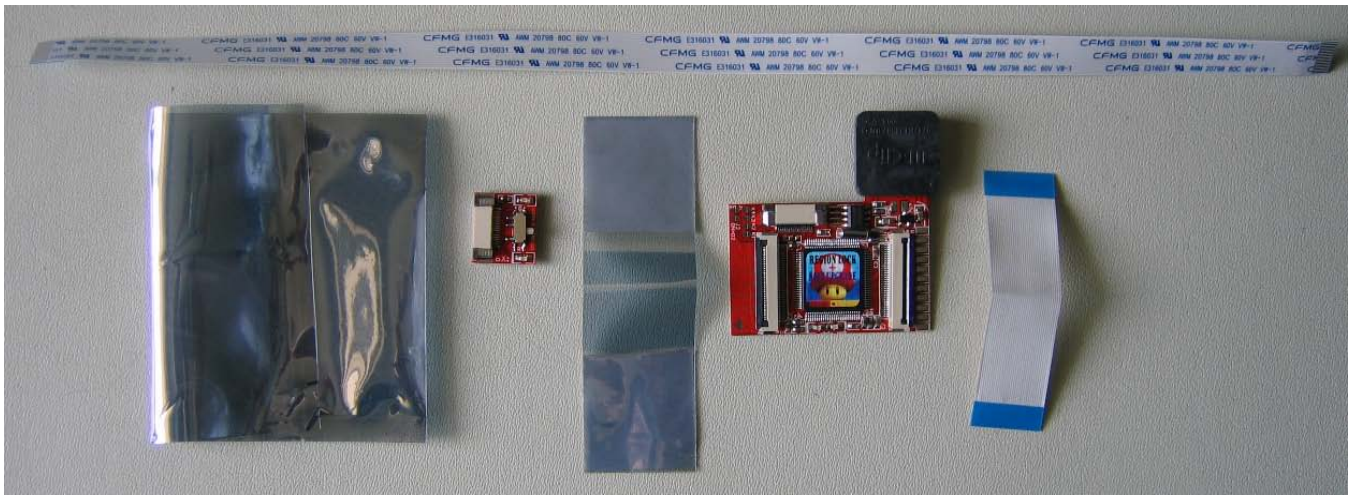
4.4 Reassemble your Wii 15

4.5 External Switch board, select D2Sun or SunKey mode 15

5. Firmware update with the Nero Dual Programmer. 16

1. The SunKey Fusion Package

1.1 Contents of package



In the package you should find the following items:

- ✓ SunKey Fusion
- ✓ Control switch board
- ✓ FPC ribbon to connect to the switchboard and if need for update to the nero programmer
- ✓ FPC ribbon to connect SunKey Fusion on Wii DVD
- ✓ 1 sticker to secure your SunKey Fusion on the Wii chassis

1.2 The SunKey Fusion Specs

- Plug and play,solderless with the SunKey mode, and partial solderless with D2Sun mode
- SunKey mode come with A.I. Boot to auto choose region, support JAP/USA/KOR/EUR all regions perfectly,100% smart and play & play!
- Support D5/D9 games
- Support homebrew roms
- Support GC games
- Support USB update CPLD core and EEPROM firmware via Nero Dual Programmer, never outdate
- Offer 3 working mode: SunKey / D2Sun / Combo
- Comes with external switch configure board, can swap the 3in1 chip working at SunKey 3X mode or D2Sun 6X mode in real time
- Comes with original Wii-Clip, solderless for all old model Wii driver, just plug and play
- D2Sun mode come with the last 6 wires firmware
- Support the last BCA Protection
- Supports all chipsets DMS,D2A,D2B,D2C,D2C2 and D2E, 100% ALL-IN-1 solution
- Supports D2-v1 chipset in SunKey mode
- Supports the pins-cut D2B Wii without grinding the chip, just place the clip on chip like other versions.
- Compatible with DVD+/-R, DVD+/-RW and Dual-layer 8.5G DVD (movies and GCOS)
- Comes with 2~8Mbit on board SPI flash
- Comes with 24M on board CLK, 100% work stable on all Wiis, without any CLK problem
- Direct boot of Wii original and backup games from the same region
- Direct boot of Gamecube original and backup games from the same region
- Direct boot of different NTSC region Wii and GC games on USA and JAP consoles
- Partial region free support on Wii and GC original and backup games with different video mode (ie PAL<->USA, JAPAN,KOR)
- Comes with Region Lock and Safe Upgrade function, can let you run the game and upgrade the game 100% safely, no way to brick your wii in any situation
- Improved read settings for recordable media
- Supports running GC games at Wii disk speed
- GC Audio streaming Fix (D2Sun mode)
- Supports full-size DVD and DVD9 discs for GC homebrew
- Supports Wii and GC multidisc games (D2Sun mode)
- Does not modify RAM, making it virtually undetectable for the Wii
- Compact design, best quality components, rock solid high speed controller
- Two LEDs indicate the D2SUN working status
- High speed and high secure Actel FPGA
- Professional ESD packing

2. Installation of the SunKey Fusion : SunKey Mode

Installation of the Fusion's SunKey Mode is very easy and 100% Plug & Play.

There are no adjustments or settings needed to pre-configure the chip.
SunKey mode runs with A.I. Boot so it will auto set the correct region.

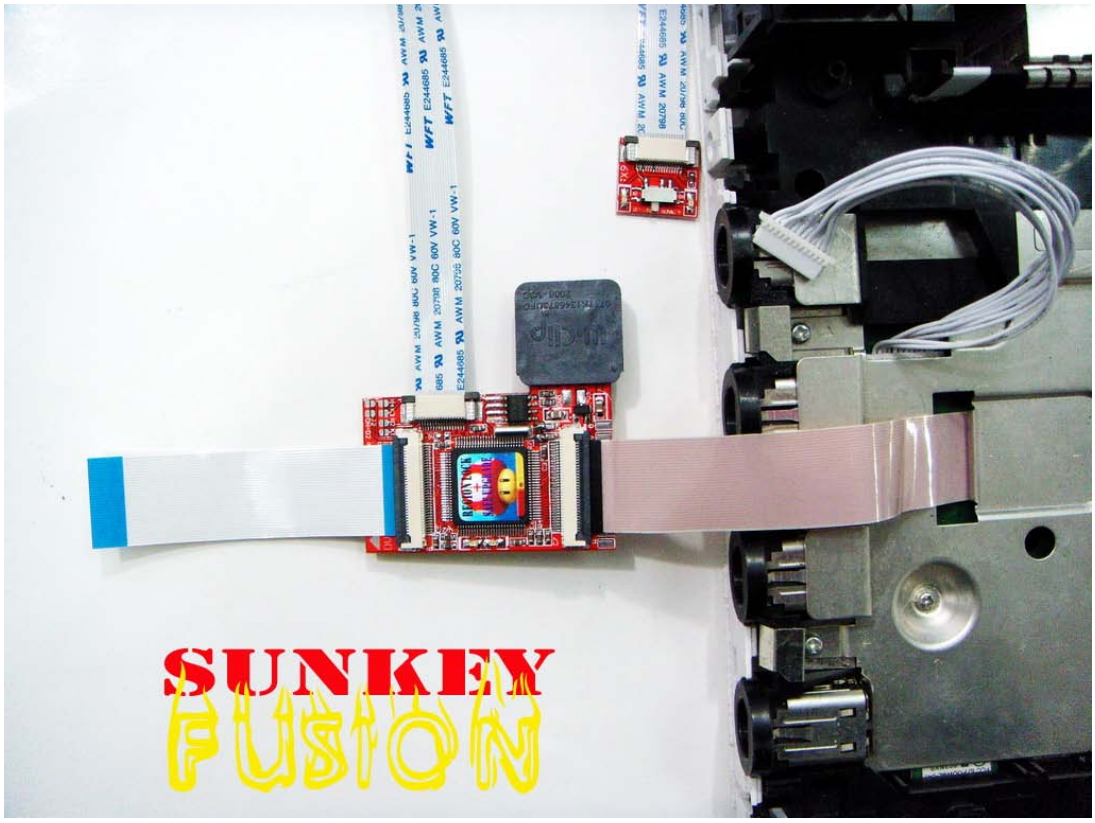
If you do not want to connect the switchboard you can leave it off in this mode.

For future updates it is recommended to at least connect the FPC in order to be able to connect the Nero Dual Programmer and apply the firmware update without opening your Wii first.

SunKey mode supports DMS/D2A/D2B/D2C/D2C2/D2E/D2-v1 chipsets at 3x speed.

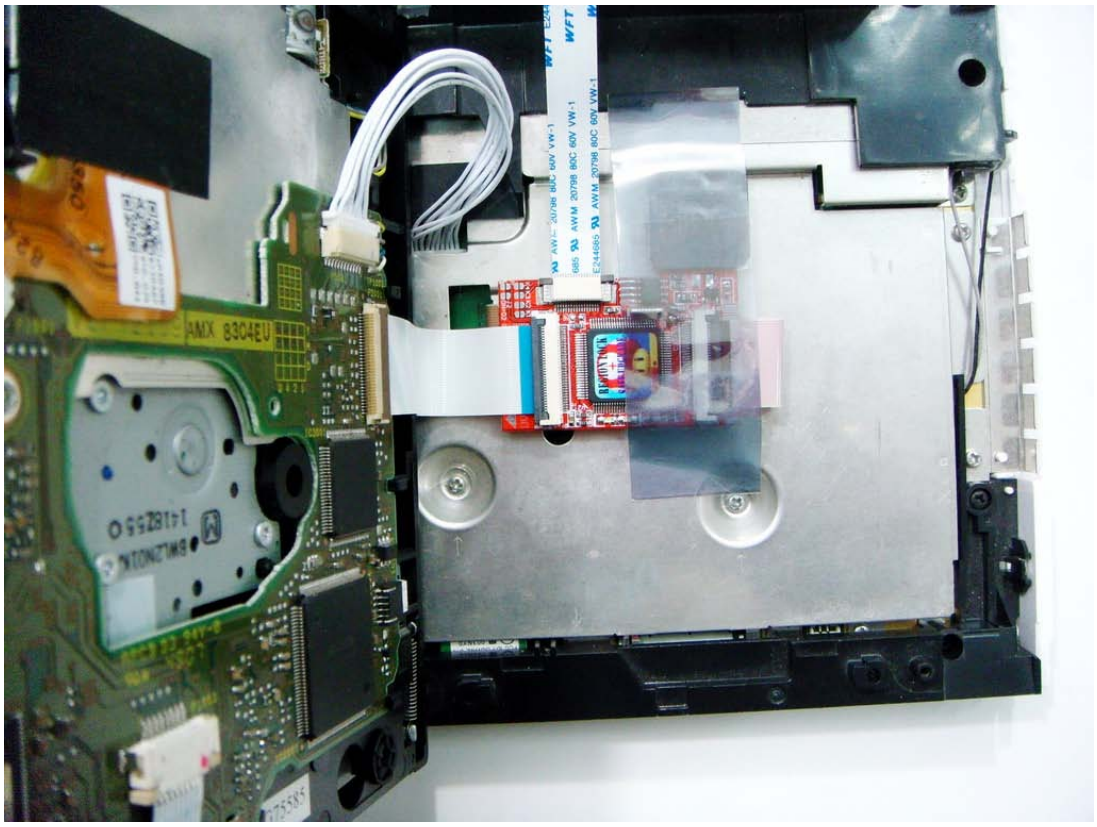
2.1 Connect the ribbons and external switchboard

Connect the 3 FPC's and the external switchboard as shown on the picture.
Make sure the FPC's are connected correctly.



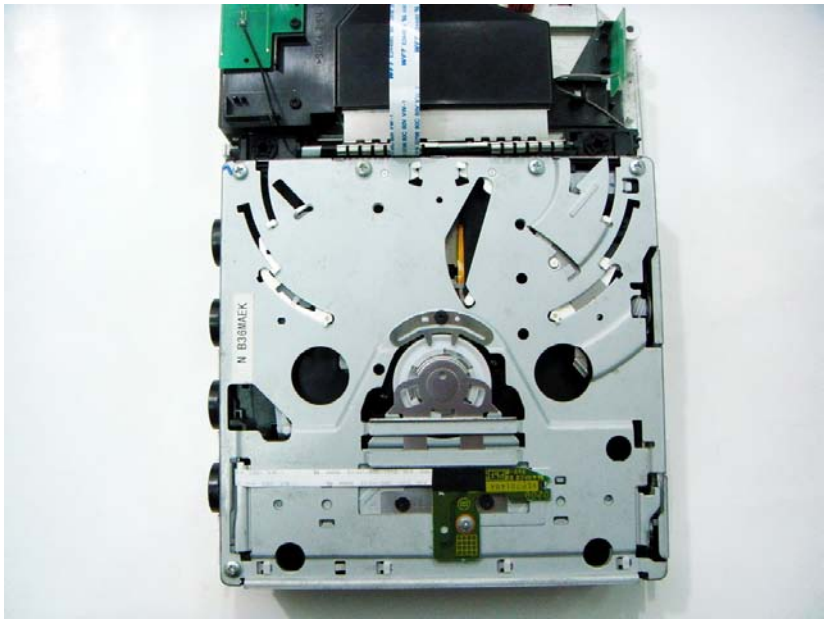
2.2 Connect the Wii DVD drive.

Now connect the FPC to the Wii DVD drive connector as shown on the picture.
Use the provided sticker to securely mount the chip on the Wii chassis.



2.3 Reassemble your Wii

Now you can continue with re-assembling your Wii and enjoy your freshly installed SunKey Fusion.
You can use the GC memory slot or the usb port to lead the FPC outside of the Wii.



Now start enjoying your freshly installed SunKey Fusion!

3. Installation of the SunKey Fusion : D2Sun Mode

Installation of the Fusion's D2Sun Mode is very easy and partial Plug & Play.

SunKey mode supports DMS/D2A/D2B/D2C/D2C2/D2E chipsets at 6x speed.

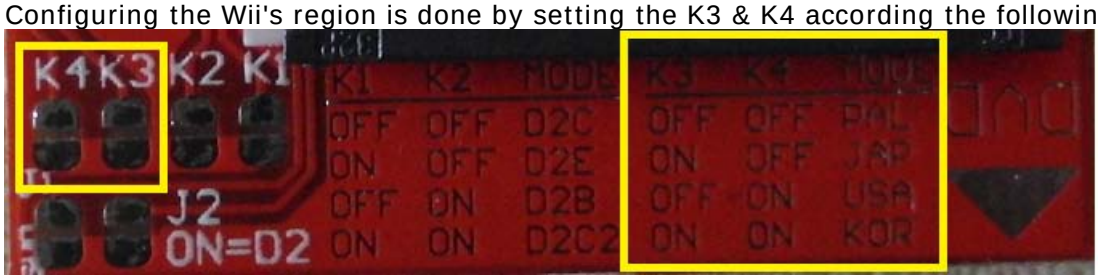
First thing to do is configure the chip to set the correct region and chipset of the Wii.

If you do not want to connect the switchboard you have to configure J2 to set d2sun mode 6 x speed. See section 3.3 - configure the J1 jumper to work in d2sun mode.

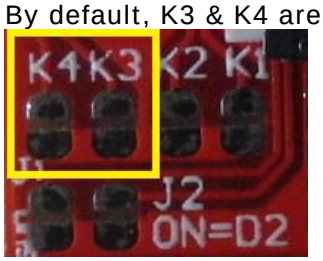
For future updates it is recommended to at least connect the FPC in order to be able to connect the Nero Dual Programmer and apply the firmware update without opening your Wii first.

3.1 Configure the Wii Region (PAL / USA / JAP / KOR)

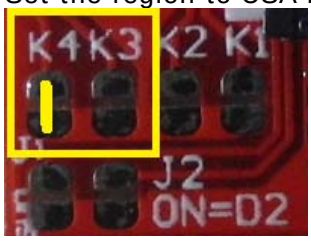
Configuring the Wii's region is done by setting the K3 & K4 according the following scheme.



By default, K3 & K4 are OFF, reflecting the PAL region.



Set the region to USA by connecting K4 as shown in the picture.



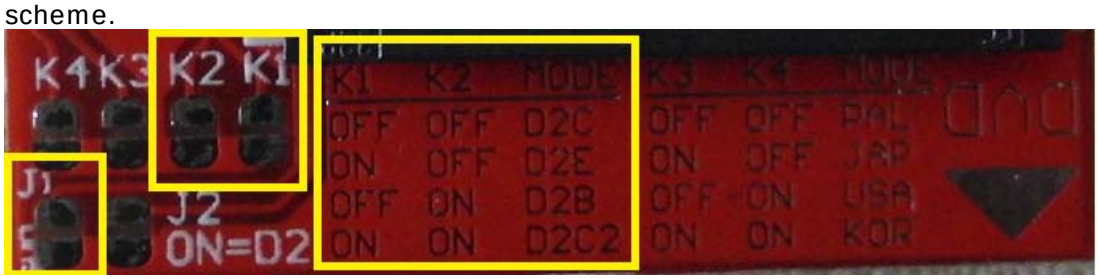
Set the region to JAP by connecting K3 as shown in the picture.

Set the region to KOR by connecting both K3 & K4 as shown in the picture.

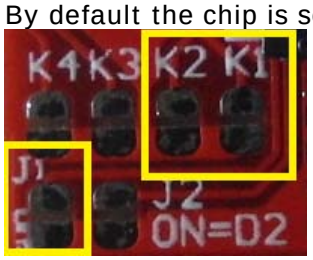
Now go the the next step to configure the Wii's chipset of the DVD drive.

3.2 Configure the Wii chipset (DMS/D2A/D2B/D2C/D2C2/D2E)

Configuring the Wii's chipset is done by setting the K1, K2 and J1 according the following scheme.

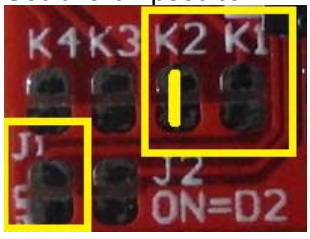


By default the chip is set for D2C chipset, K1 & K2 = OFF, as shown on the picture.

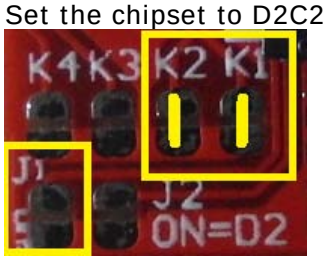


To set the chipset to DMS or D2A, connect J1 as shown on the picture.

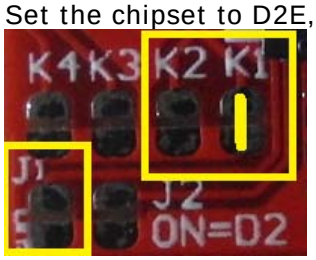
Set the chipset to D2B, connect K2 as shown on the picture.



Set the chipset to D2C2, connect K1 & K2 as shown on the picture.

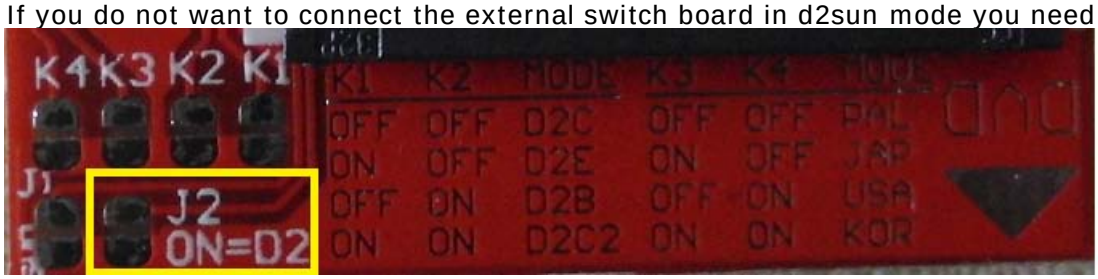


Set the chipset to D2E, connect K1 as shown on the picture.



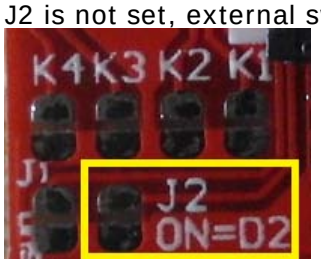
3.3 Configure the J1 jumper to work d2sun mode <u>without switchboard</u>.

If you do not want to connect the external switch board in d2sun mode you need to set the J2.

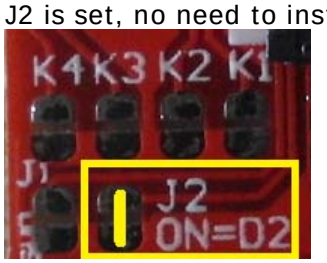


If you do not set the J2 then you need to set the switchboard on 6x in order to use the d2sun mode.

J2 is not set, external switch board is needed to set d2sun 6x mode.



J2 is set, no need to install the switchboard,d2sun 6x mode selected.



Next you can use for a Wii-Clip (see 3.4) or a Wired (see 3.5) installation.

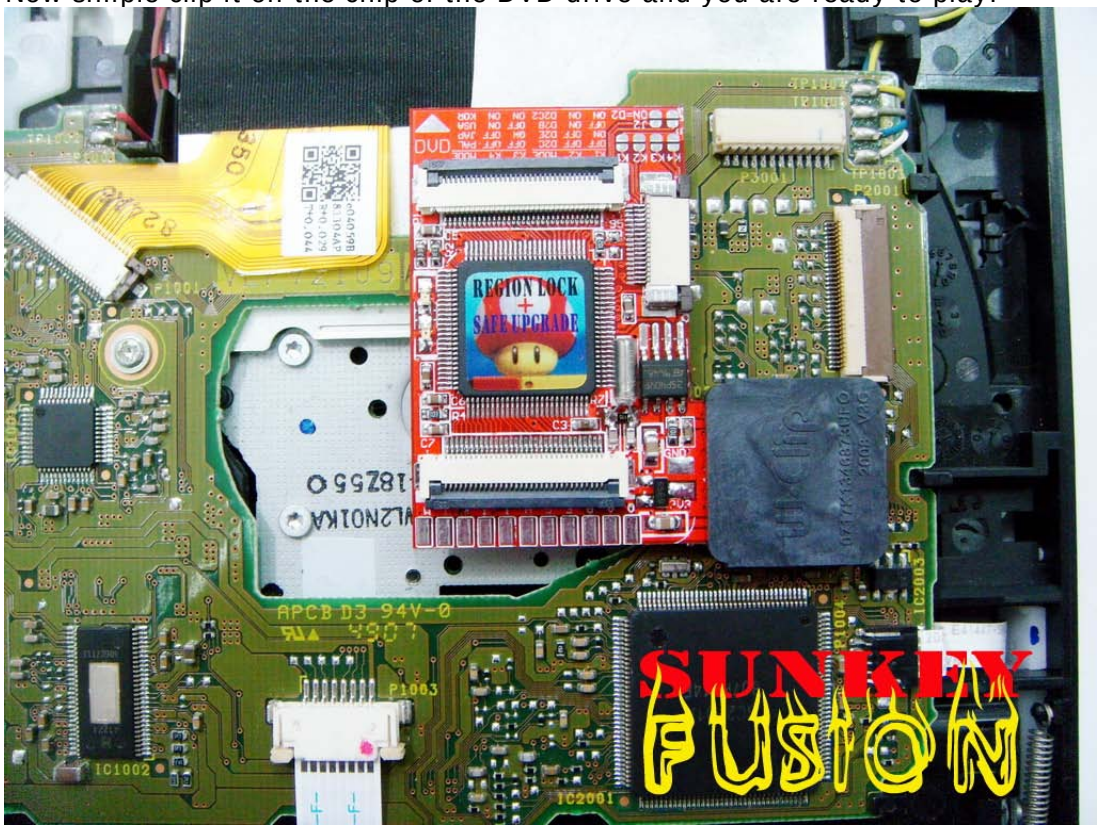
3.4 Wii-Clip installation

After setting up the correct region of chipset the easiest method of install is done by using the build in genuine Wii-Clip.

Before you clip it, first connect the FPC with switchboard if you didn't set the J2 config option (see 3.3) and make sure it is set to 6x.

If you did set the J2 config option, then we recommend you still connect the FPC in order to allow to connect the Nero Dual Programmer for future firmware updates.

Now simple clip it on the chip of the DVD drive and you are ready to play.



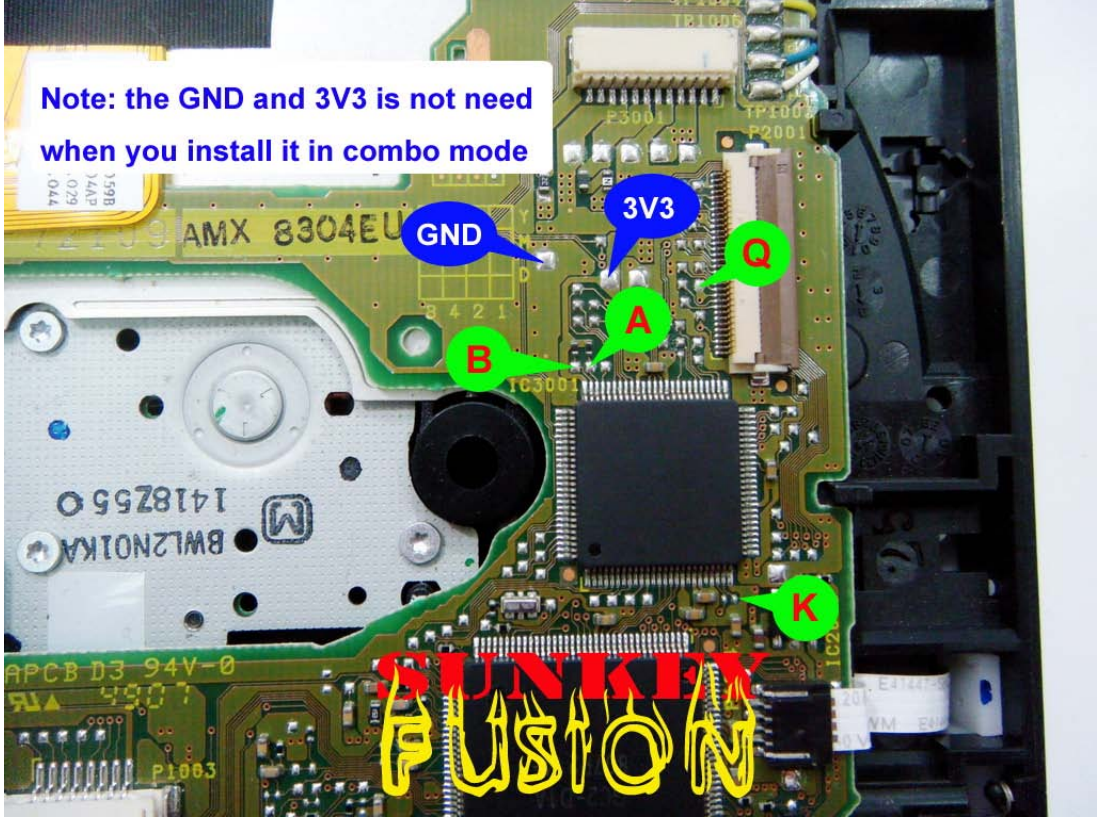
3.5 Wired installation

If you do not want to use the build-in Wii-Clip it is off course possible to just traditionally wire-up the chip to the DVD drive of the Wii.

If you didn't set the J1 config option (see 3.3) you need to connect the FPC and the external switchboard to the chip, set the switch on the board to 6x for d2sun mode.

If you did set the J2 config option, then we recommend you only connect the FPC in order to allow to connect the Nero Dual Programmer for future firmware updates.

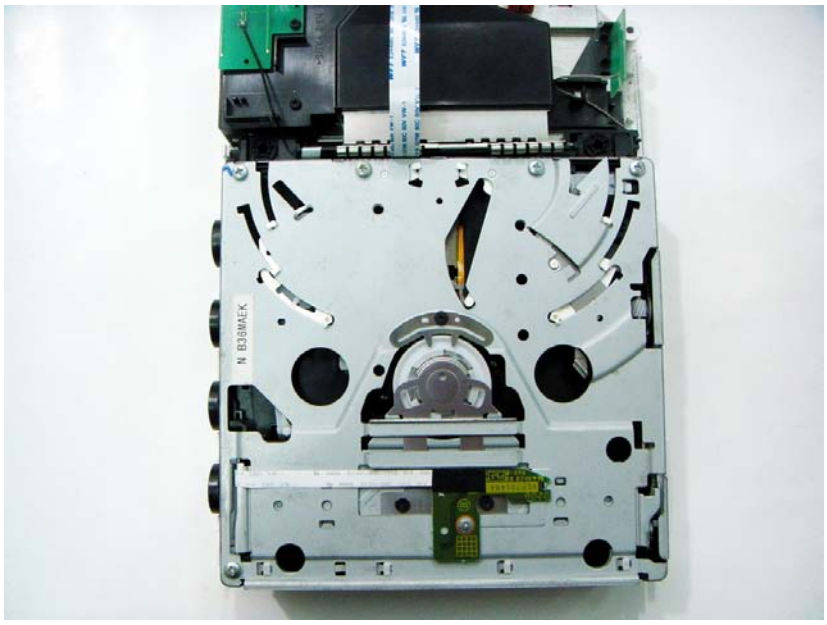
Simple follow the installation scheme as show in the picture.



5 wires for DMS, D2A and D2B chipsets: GND, 3V3, A, B, Q.
6 wires for D2C, D2C2 and D2E chipsets: GND, 3V3, A, B, Q, K.

3.6 Reassemble your Wii

Now you can continue with re-assembling your Wii and enjoy your freshly installed SunKey Fusion.
You can use the GC memory slot or the usb port to lead the FPC outside of the Wii.



Now start enjoying your freshly installed SunKey Fusion!

4. Installation of the SunKey Fusion : Fusion Mode

The SunKey Fusion mode is a combo installation method which enables you to switch between the traditional wired and the newer type SunKey PFC/flat cable installation mode.
2 Different technologies in 1 installation, real-time switchable by using the external switchboard. Suitable for DMS/D2A/D2B/D2C/D2C2/D2E chipsets.

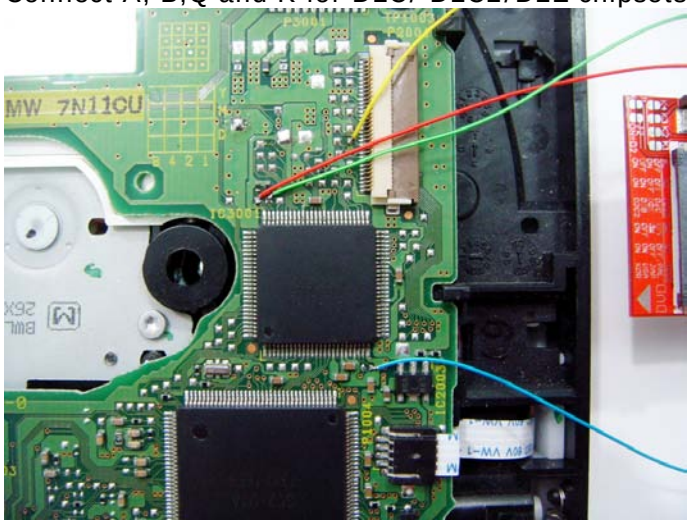
4.1 Configure the chipset and region settings for 6x speed switch mode

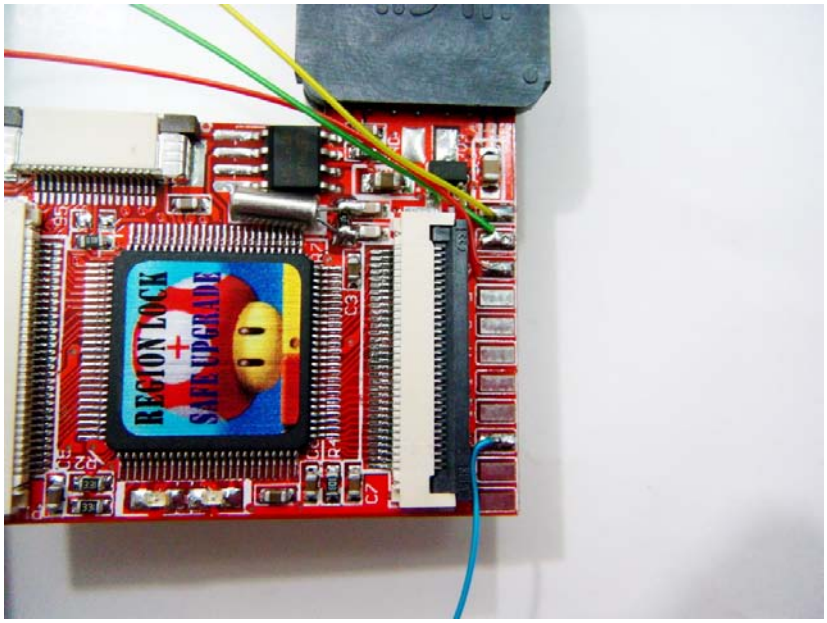
Follow the steps as describe in chapter 3.1 and 3.2 in order to set the d2sun mode's region and chipset configuration.
After those steps continue with chapter 4.2 to install your SunKey in Fusion Mode.

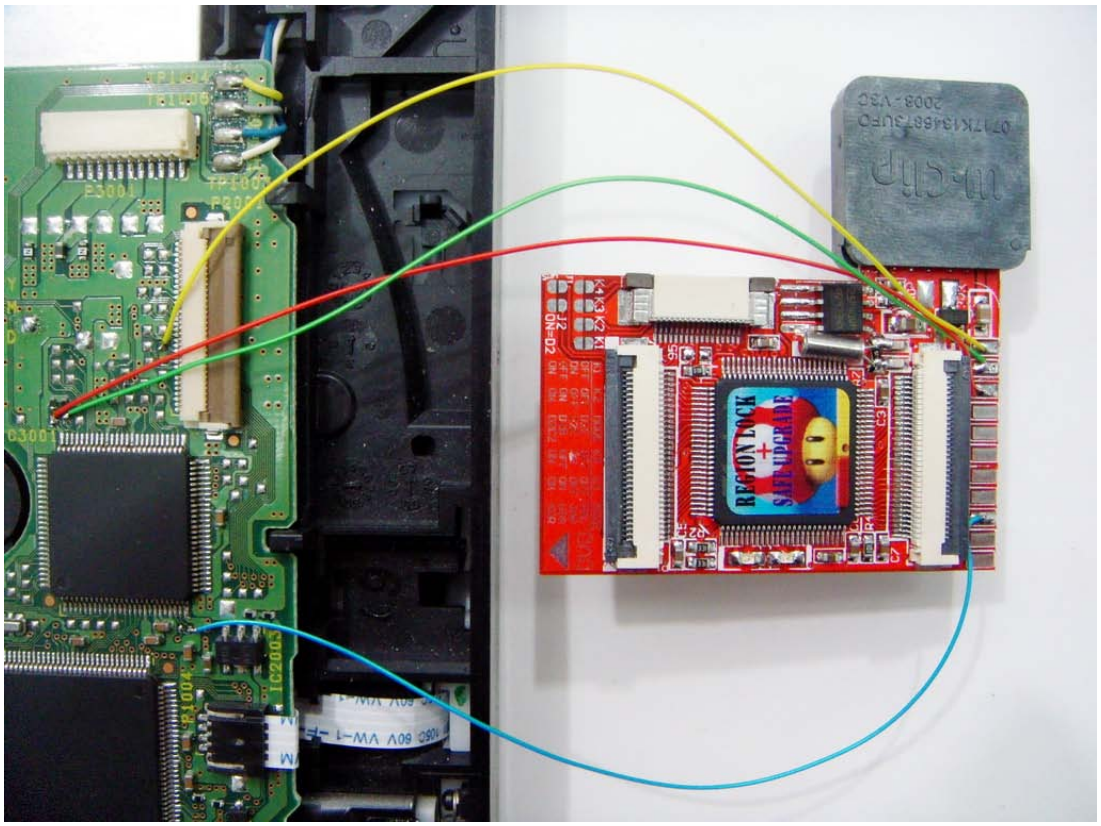
4.2 Install the wires between the dvd drive and the SunKey Fusion

Connect the wires between the DVD Drive and the chip according the reflected scheme (see 3.5). Do NOT connect ground and power since we are doing a fusion mode install.

Connect A, B and Q for DMS/D2A/D2B chipsets.
Connect A, B,Q and K for D2C/ D2C2/D2E chipsets.

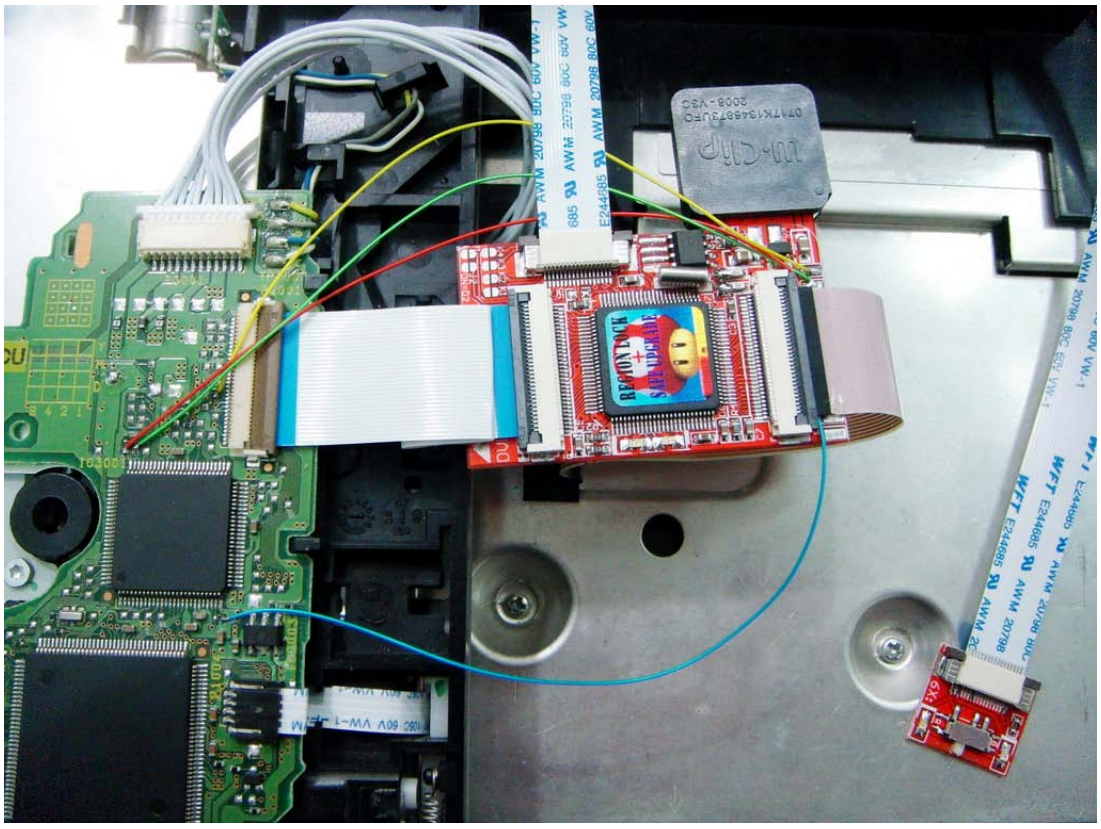


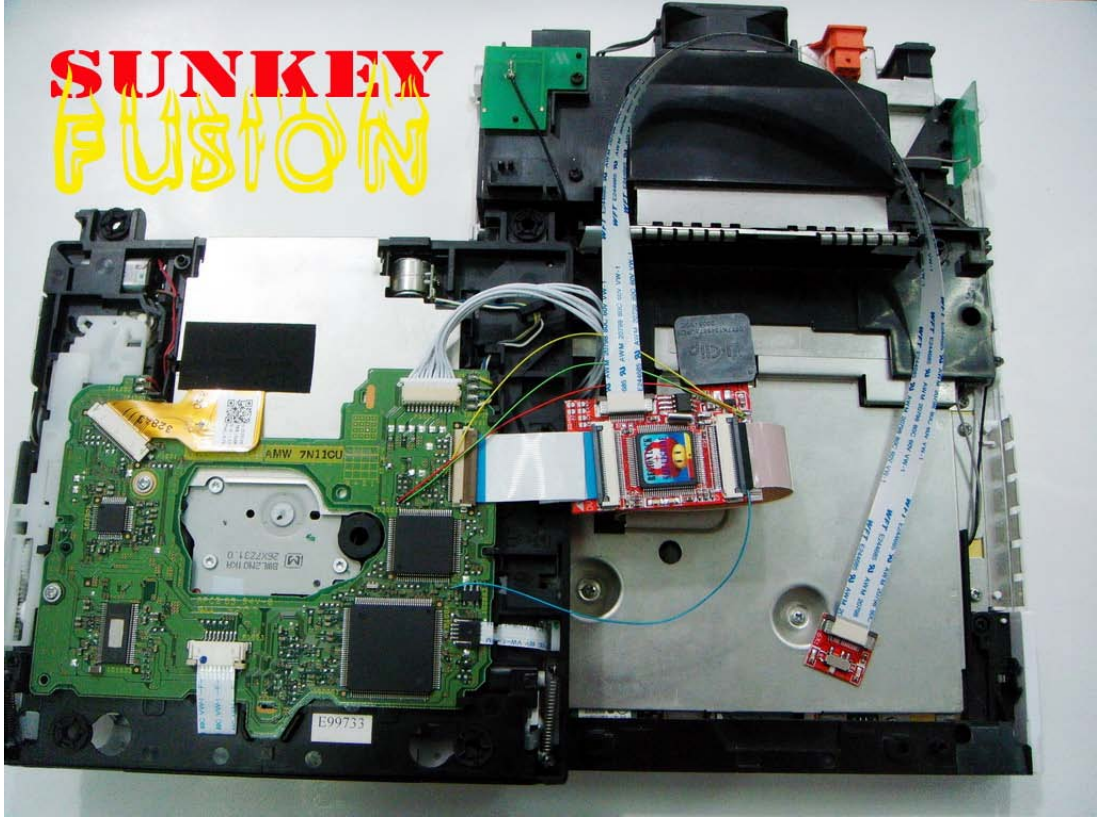




4.3 Connect the FPC's to the SunKey Fusion

Connect the 3 FPC's and the external switchboard as shown on the picture.
Make sure the FPC's are connected correctly.

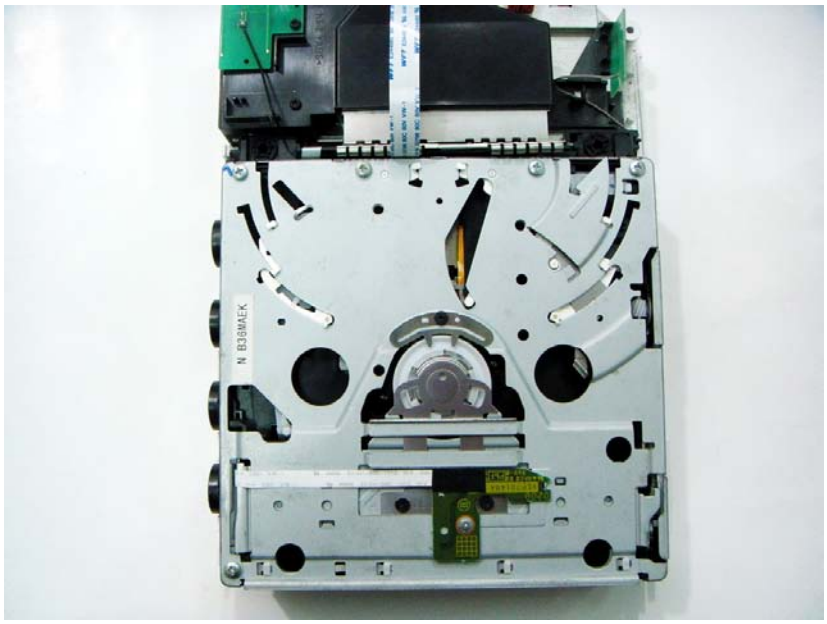




Now use the provided sticker to mount the chip on the chassis of the Wii.

4.4 Reassemble your Wii

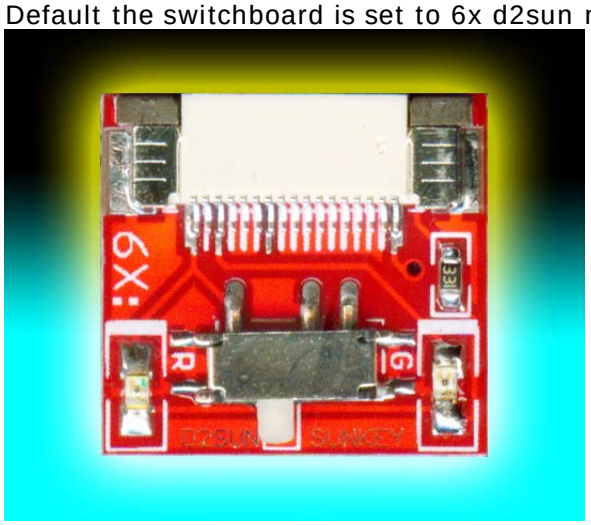
Now you can continue with re-assembling your Wii and enjoy your freshly installed SunKey Fusion. You can use the GC memory slot or the usb port to lead the FPC outside of the Wii.



4.5 External Switch board, select D2Sun or SunKey mode

The external switchboard allows you to switch between the D2Sun or SunKey mode. D2Sun mode runs at 6x speed, SunKey mode runs at 3x speed.

Default the switchboard is set to 6x d2sun mode.



Now start enjoying your freshly installed SunKey Fusion!

5. Firmware update with the Nero Dual Programmer.

As usual this product is again future proof.

Simple disconnect the external switchboard and connect the FPC to the Nero Dual Programmer in order to apply an new firmware update for your SunKey.